## FASSE PATENT ALTYS

## In the Claims:

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Claims 1 to 48 (canceled).

49. (currently amended) An organic electroluminescent device having a luminescent material containing layer interposed between a positive electrode and a negative electrode for supplying electrical energy to said luminescent material for emitting light upon receipt of said electrical energy, said negative electrode containing f-, p-, and d-element d-elements wherein:

said f-element is at least one element selected from the group consisting of Be, Ti, V, Cr, Mn, Zr, Nb, La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er, Tm, Lu, Hf and Ta;

said p-element is at least one element selected from the group consisting of H, B, C, N, O, F, Al, Si, P, S, Cl, Ga, Ge, As, Se, Br, In, Sb, Te, I, Tl, Zn, Cd and Hg, and

said d-element is at least one element selected from the group consisting of Mo, Re, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, Pt, Cu, Ag, Au, and Al. Hg, B, Tl, Si, Ge, P, As, Sb, Se and Te and wherein said d element is excluded from the selection of said f or p element.

1 50. (previously presented) The organic electroluminescent
2 device of claim 49, wherein said luminescent material
3 containing layer comprises at least a host, as a principal
4 component, and a fluorescent dopant, and wherein a molar

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- mass ratio of a molecule of said dopant to a molecule of said host (dopant/host) is in the range of 0.344 to 2.90.
- of the organic electroluminescent device of claim 49, wherein said f-element is at least one element selected from the group consisting of La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er, Tm, and Lu.
  - 52. (previously presented) The organic electroluminescent device of claim 49, wherein said f-element is at least one element selected from the group consisting of La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, and Er.
- 1 53. (previously presented) The organic electroluminescent 2 device of claim 49, wherein said f-element is at least one 3 element selected from the group consisting of La, Ce, 4 and Pr.
- 1 54. (previously presented) The organic electroluminescent 2 device of claim 49, wherein said f-element is at least one 3 element selected from the group consisting of Ce, Pr, Nd, 4 Gd, Tb, Dy, Ho, Er and Lu.
- 1 55. (previously presented) The organic electroluminescent 2 device of claim 49, wherein said f-element is at least one 3 element selected from the group consisting of Sm and Tm.



of claim 49, wherein said f-element is at least one element selected from the group consisting of Ce, Pr, Nd, Sm, Gd,

Tb, Dy, Ho, Er, Tm and Lu.

## Claims 57 to 60 (canceled).

- 61. (previously presented) The organic electroluminescent device of claim 49, wherein a mean electronegativity value 3  $E_{ave}$  of said negative electrode is in the range of 1.50 - 1.91, relative to an electronegativity value of 1.15 of lanthanoid 5 a element, wherein said electronegativity value is calculated by weighting an 6 7 electronegativity value of each negative constituting f- and p-element by a proportion of a number of atoms of the respective f- and p-element present in the 10 negative electrode.
  - 62. (previously presented) The organic electroluminescent device of claim 61, wherein said lanthanoid element is Ce.
  - 1 63. (previously presented) The organic electroluminescent
    2 device of claim 49, wherein said device has an emission
    3 efficiency of at least 10.0 cd/A when said device is
    4 operated by a flow of a DC current to emit light with a
    5 controlled luminance of 100 cd/m², said emission efficiency
    6 being calculated by dividing said luminance by a current
    7 density.

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(previously presented) An organic electroluminescent device having a luminescent material-containing layer interposed between a positive electrode and a negative electrode for supplying an electrical energy to said luminescent material for emitting light upon receipt of said electrical energy, said negative electrode containing f- and p- elements wherein:

said f-element is at least one element selected from the group consisting of La, Ce, Eu and Yb; wherein

said p-element is at least one element selected from the group consisting of Zn, Al, Sn and Sb, and wherein

said negative electrode comprises a first layer closest to said luminescent material-containing layer, a second layer overlying said fist layer and a third layer overlying said second layer, and wherein said first layer is made of at least one of said f-element, wherein said second layer is made of a mixture or compound of at least one each of said f- and p-elements and said third layer is made of at least one of said p-element.

- 65. (previously presented) The organic electroluminescent device of claim 64, wherein said f-element is Ce and said p-element is Al.
- 1 66. (previously presented) The organic electroluminescent 2 device of claim 64, wherein said second layer has such a 3 composition gradient in its thickness direction toward its

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interface with the third layer from its interface with the first layer, that a content of said f-element in said second layer decreases while a content of said p-element increases in said thickness direction of said second layer.

- 67. (previously presented) The organic electroluminescent device of claim 64, wherein at least one of said first, second and third layers of said negative electrode contain an additional element different from the constituent element thereof.
- 68. (currently amended) An organic electroluminescent device having a luminescent material-containing layer interposed between a positive electrode and a negative electrode for supplying an electrical energy to the luminescent material for emitting light upon receipt of said electrical energy, said negative electrode containing f- and p-elements wherein:

said f-element is at least one element selected from the group consisting of elements those having electronegativity values higher than that of calcium and equal to or lower than that of vanadium; and

said p-element is at least one element selected from the group consisting of elements having electronegativity values equal to or higher than that of aluminum; and

wherein said negative electrode comprises a first layer closest to said luminescent material-containing layer, a second layer overlying said first layer and a

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third layer overlying said second layer, and wherein said first layer is made of at least one of said f-element, said second layer is made of a mixture or compound of at least one each of said f- and p-elements and said third layer is made of at least one of at least one of said p-element.

- device of claim 68, wherein said second layer has such a composition gradient in its thickness direction toward its interface with the third layer from its interface with the first layer, that a content of said f-element in said second layer decreases while a content of said p-element increases in said thickness direction of said second layer.
- 70. (previously presented) The organic electroluminescent device of claim 68, wherein at least one of said first, second and third layers of said negative electrode contain an additional element different from the constituent element thereof.
- 1 71. (new) An organic electroluminescent device having a
  2 luminescent material containing layer interposed between a
  3 positive electrode and a negative electrode for supplying
  4 electrical energy to said luminescent material for emitting
  5 light upon receipt of said electrical energy, said negative
  6 electrode containing f-, p-, and d-elements wherein:

7 said f-element is at least one element selected from the group consisting of Be, Ti, V, Cr, Mn, Zr, Nb, La, Ce, 8 Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er, Tm, Lu, Hf and Ta; said p-element is at least one element selected from the group consisting of H, B, C, N, O, F, Al, Si, P, S, Cl, Ga, Ge, As, Se, Br, In, Sb, Te, I, Tl, Zn, Cd and Hg, and 12 13 said d-element is at least one element selected from the group consisting of Re, Fe, Ru, Os, Co, Rh, Ir, Ni, Pd, 14 Pt, Cu, Au, Hg, Tl, Si, Ge, P, As, Sb, Se and Te and 15 wherein said d-element is excluded from the selection of 17 said f- or p-element.

## [RESPONSE CONTINUES ON NEXT PAGE]